

TITLE PAGE

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PRECISION AID EYE DROP GLASSES.

Eye drop aid device.

A device for giving yourself eye drop easily fast and precise without waste or contamination of the drops. It is a direct eye drop bottle in hand to eye co-ordination delivery.

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**BACKGROUND.**

EZY CARE DROP AID has a cup that fits over the eye to deliver eye drops. The other end end of this cup has a port that the eye drop bottle fits in. The drop must go clear through the cup to be delivered into the eye. The interior of the cup must be sanitized constantly to avoid contamination. With eye covered over one would wonder if the drop ever reached the eye.

The EYE DROP GUIDE GUIDE is a plastic cradle that the eye drop bottle fits in. The cradle has a pointed projection under the nipple of the bottle that is placed on the bone below the lower eye lid and pressed downward to pull the lower eye lid down as you squeeze the drop from the bottle into the eye. as you can see this has a safety hazard of poking yourself in the eye with the projected point below the bottle tip while seeking to find the bone below the eye.

FIRST DROP is another cradle device that the eye drop bottle fits into and requires different size for different size bottles. It also requires seeking out bone features of the face to locate the eye. I think perhaps the safety of this invention is also lacking . It depend too much on a person wandering around the face trying to locate the proper features around the eye.

GIBILISCO invention is a adjustable device consisting of two parts that have to be adjusted before hand horizonily a vertically. This is not required with PRECISION AID EYE DROP GLASSES. Holding the device steady and not allowing bottle tip to touch the eye one wonders if there is also a question of safety here. if the device is not horizonaly held and is tip up on one end or down the eye drop will end up in one corner of the eye or the other instead of the center. When giving drops to one self it is adviceable to steady the hand against something steady as Mr. Gibilisco suggest.

MR. Frieds eye drop device is rather bulky with a lot of surface area to clean each time you use it It also has a lot of adjustment that have to be calibrated before hand to put the eye drop in the center of the eye. I have found that adjustments never stay put . They either come loose or go out of ajustment in which case the calibration has to be done over. Some devices are throw aways as they only fit one size bottle in which case they have to be throwed away with the container.

## SUMMARY

Precision aid eye drop glasses are the first natural hand to eye delivery of eye drops from a eye drop bottle to one self. It also stops the delivery of the eye drop bottle 1/2" above the eye ball as a margin of safety by a guide frame that is funnel shaped to guide the bottle downward into a holding slot. No matter what the size of the bottle is this slot is tapered to accept any size bottle tip. The guide frames are so easy to clean because you clean them just like you cleaned your eye glasses, with a Kleenex tissue. The inside and outside of the copper wire guide frame have very little surface area to clean so it takes only a couple seconds. Delivery of a drop to both eyes takes less than 6 seconds.

Precision Aid eye drop glasses have been approved by a staff of 15 eye Doctors 4 of which are surgeons at the Davenport Hospitals eye clinic. After consultation they decided to stock their 5 clinics in this area and surrounding towns with 10 of these eye drop glasses. They also recommended them to their patients who also liked using them. Nine pharmacies in the same area have been stocking 10 of these eye drop aids in their store.

## DISCRIPTION OF THE PREFFERED DOCUMENT.

Precision Aid eye drop glasses was called on once again by this inventor to service eyes like they had faithfully for decades. I knew they were up to the challenge because of their precise positioning over the eyes. I invented a funnel shaped guide frame and attached it to the brow bar over the area above the eyes. I was right they worked out perfectly. I cut the bottom half glass frame off and discarded the glass this made room for user to pull down the lower eye lid to make a larger target for the eye drop bottle to put a drop into the eye with the other hand. I used { fraction (5/64) }" copper wire to make a funnel shaped guide frame to guide the eye drop bottle down into a holding slot where it rest until the bottle is squeezed to put a drop into the eye. I made one of these guide frames for each eye. The holding slot for the bottle is 1/4" to fit the nipple of various size eye drop bottles. The guide frames part # 2 page 1 FIG.6 of the prints are shown anchored to the bottom of the brow bar # 1 page 1 FIG. 6 of the frame. These guide frames are angled outward in front of the brow bar 1/4 " to add to the normal clearance of the guide frame resulting in a 1/2 " safety clearance of the tip of the eye drop bottle to the eye. From the bottom of the brow bar to the inside bottom of the eye drop bottle holding slot is { fraction ( 5/8) }" This positions the eye drop bottle over the center of the eye top to bottom. To center the bottle left to right over the eye I measure from the center of the nose saddle #3 print page 1 FIG. 6 shown as letter C out to the left and also to the right 1-1/4 " to the center of the guide frame # 2 page 1 FIG. 6 also shown with a letter C print page 4 FIG. 1. I show a template I use to locate where to drill four { fraction ( 5/64 ) }"holes to mount the guide frames # 2 FIG. 6 to the bottom of the brow bar #1 also on FIG. 6. I line the C on the template with the C on the nose saddle and mark the location of the four holes on the bottom of the brow bar. The holes are drill all the way through the brow bar. The copper guide frames are made of { fraction ( 5/64 ) }" wire and the holes are the same size to assure a tight fit. Print page 2 and 3 show FIG. 7 and FIG. 8 the 1/4 " protrusion of the guide frame in front of the brow bar.

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### SPECIFICATIONS

PRECISION AID guide frames are designed to capture the delivery end of the eye drop bottle therefore the top of the guide frames are  $7/8$  " wide which the eye receiving the drop can look through and is wide enough to capture the delivery of eye drop bottle in hand. these guide frames are funnel shaped tapering downward into a holding slot at the bottom of the guide frame to be held until the drop delivery. In as much as much as the eye receiving the drop is open and the other eye is closed so you will know which guide frame the eye is looking though. The holding slot at the bottom of the guide frame is  $1/4$  " wide. From the bottom of the holding slot to the bottom of the brow bar underside is  $5/8$  ". This puts nipple of the eye drop bottle over the center of the eye vertically. With this arrangement and the eye watching through the guide frame the eye drop bottle can not miss. It comes down to a natural hand to eye delivery like hand to mouth delivery of food only easier as your hand can not see your mouth. The holding slot of the guide frame protrudes outwards in from of the eye drop glasses  $1/4$  " add this to the normal clearance of eye glasses to the eye and you have a safe clearance of the tip of eye drop bottle of  $1/2$  " from the eye for a safety margin so you do not poke yourself in the eye.

### SPECIFICATIONS ON HOW TO USE.

Put on the eye drop glasses and tilt head back or lay down to receive the drop. Close the eye not receiving the drop so you see the guide frame for the eye that is to receive the drop. to guard against contamination the guide frames are wiped clean with a Kleenex corner and pinch between the thumb and finger and twitched back and forth to clean the outside and inside surfaces at the same time to pick up any eye drop residue. The guide frames should be washed in soap and water now and then to prevent contamination and infection. Using the eye drop glasses is fast and easy and the drops are always delivered to the center of the eye with the full amount of medication.

## CLAIM #1

## POSITIONING

The guide frames on PRECISION AID eye drop glasses are mounted under the brow of plastic eye glass frames and are designed to capture the eye drop bottle in the inside area of the guide frame by being 7/8 "wide at the top and tapering downward like a funnel to a 1/4 "holding slot at the bottom which is 1/2 "above the eye and centered over the eye horizontally and vertically.

## CLAIM # 2

## SAFETY.

The guide frames of the eye drop glasses protrude outward in front of the brow bar 1/4" to stop the eye drop bottle nipple 1/2 " above the eye to prevent it from poking into the eye.

## CLAIM # 3

## CLEANING.

PRECISION AID guide frames have very little surface area to clean therefore they can be clean with running the corner of a Kleenex through the inside area of the guide frame and pinching the Kleenex between the thumb and finger in a rubbing action cleaning any residue eye drop moisture from the inside and outside surface at the same time and also washing the guide frames with soap and water now and then.

## ABSTRACT

This invention is for a user to give themselves eye drops from an eye drop bottle to the center of the eye both horizontally and vertically and a half inch above the eye for safety. Precision aid is mounted on regular eye glass frames as they are reliable and stable. I modify the eye glasses by cutting away the bottom rim and discarding the glass. In its place I mount a copper wire guide frame under the brow bar that covers the entire area above the eye. This guide frame has an open center area that is one inch across horizontally and vertically over one half inch downward ending in a holding slot that is one half inch above the eye for safety. This invention now is called Precision Aid eye drop glasses. A user puts on the eye drop glasses and closes eye not receiving drop at this time. Eye receiving drop look through the copper eye guide frame. The head is tilted back and sees the hand holding the eye drop bottle approach and aiming directly at the area above the eye. No matter where it comes down in the guide frame the guide frame is funnel shaped and with the help of the hand slides down the guide frame into the holding slot. Then the hand raises the eye drop bottle vertically and squeezes out the drop. Then that eye is closed and the hand moves over to the other eyes guide frame under which the eye is now open to receive the eye drop bottle in the same manner. During this process of giving yourself eye drops the user other hand has pulled down the lower eye lid of the eye to make the eye target even bigger. That was the reason for when modifying the eye glass frame the bottom rim of the eye glass frame was cut away to make room for the hand.

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